

Notice of Allowability

Application No.

09/994,497

Examiner

LaShonda T. Jacobs

Applicant(s)

SRINIVASAN ET AL.

Art Unit

2157

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to July 21, 2006.
2. ☒ The allowed claim(s) is/are 1-38.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


ARIETTE HENNE
COMM DATE/TIME EXAMINED

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with John Henkhaus Reg. No.42,656 on September 13, 2006.

IN THE CLAIMS

Please amend claims 1, 2, 4, 5, 7-11, 13, 14, 20, 21 23-30, 32 and 38 as follows:

1. (currently amended) In a computer system on which one or more applications execute, a computer-implemented method for reconfiguring an application without restarting the computer system, comprising:

wherein a first [[application]] configuration of a particular application is defined by first [[application]] configuration information, the first [[application]] configuration information specifying application classes for execution of the particular application according to the first [[application]] configuration;

reading second [[application]] configuration information defining a reconfigured version of the particular application, the second [[application]] configuration information specifying application classes for execution of the particular application according to the reconfigured version of the particular application;

- constructing a second [[application]] configuration of the particular application based on the second [[application]] configuration information; and
- providing the second [[application]] configuration to an application runtime environment for servicing new requests related to the particular application while maintaining the first [[application]] configuration for servicing, concurrently with the servicing of new requests based on the second [[application]] configuration, existing requests related to the particular application.
2. (currently amended) The method of claim 1, further comprising:
- destroying the first [[application]] configuration upon completion of all application service requests using the first [[application]] configuration, whereby computer system resources used to maintain the first [[application]] configuration are made available for other uses.
4. (currently amended) The method of claim 1, further comprising:
- determining that the second [[application]] configuration successfully initialized prior to providing the second [[application]] configuration to the runtime environment for servicing new requests.
5. (currently amended) The method of claim 4, wherein the step of determining that the second [[application]] configuration successfully initialized is based on a communication from the application runtime environment.
7. (currently amended) The method of claim 1, wherein constructing the second [[application]] configuration is further based on an application runtime environment configuration.

8. (currently amended) The method of claim 7 wherein constructing the second

[[application]] configuration includes:

reading a timestamp associated with the second [[application]] configuration information;

and

determining that the second [[application]] configuration information is different than the

first [[application]] configuration information based on the timestamp.

9. (currently amended) The method of claim 1 wherein constructing the second

[[application]] configuration includes:

reading a timestamp associated with a class file referenced in the second [[application]]

configuration information;

determining that the class file has changed based on the timestamp; and

constructing the second [[application]] configuration, at least in part, according to the

changed class file.

10. (currently amended) The method of claim 1, further comprising:

logging one or more messages related to providing the second [[application]]

configuration to the computer system.

11. (currently amended) The method of claim 1, wherein providing the second [[application]]

configuration comprises:

updating a current configuration reference to reference the second [[application]]

configuration rather than the first [[application]] configuration.

13. (currently amended) The method of claim 1 wherein the first [[application]] configuration is maintained for servicing, without interruption, existing requests related to the particular application from an existing connection.

14. (currently amended) In a computer system on which one or more applications execute, wherein a former application configuration is defined by a first application configuration information and a current application configuration is defined by a second application configuration information, the application configurations providing for execution of the application, a computer-implemented method for processing application service requests, comprising:

wherein the first application configuration information specifies application classes for execution of the application according to the former application configuration and the second application configuration information specifies application classes for execution of the application according to the current application configuration; completing processing, based at least in part on the application classes specified in the first application configuration information, a pending first request for an application service that is associated, via a global variable, with the former application configuration; receiving a second request for an application service; associating, via a global variable, the second request with the current application configuration; accessing the second application configuration information defining the current application configuration; [[and]]

while completing processing the pending first request, processing the second request

based at least in part on the application classes specified in the second application configuration information.

20. (currently amended) In a computer system on which one or more applications execute, a computer-readable medium comprising instructions which, when executed by one or more processors, cause the one or more processors to reconfigure an application without restarting the computer system, by performing the steps of:

wherein a first [[application]] configuration of a particular application is defined by first [[application]] configuration information, the first [[application]] configuration information specifying application classes for execution of the particular application according to the first [[application]] configuration;

reading second [[application]] configuration information defining a reconfigured version of the particular application, the second [[application]] configuration information specifying application classes for execution of the particular application according to the reconfigured version of the particular application;

constructing a second [[application]] configuration of the particular application based on the second [[application]] configuration information; and

providing the second [[application]] configuration to an application runtime environment for servicing new requests related to the particular application while maintaining the first [[application]] configuration for servicing, concurrently with the servicing of new requests based on the second [[application]] configuration, existing requests related to the particular application.

Art Unit: 2157

21. (currently amended) The computer readable medium of claim 20, wherein execution of the instructions by the one or more processors causes the one or more processors to perform:

destroying the first [[application]] configuration upon completion of all application service requests using the first [[application]] configuration, whereby computer system resources used to maintain the first [[application]] configuration are made available for other uses.

23. (currently amended) The computer readable medium of claim 20, wherein execution of the instructions by the one or more processors causes the one or more processors to perform:

determining that the second [[application]] configuration successfully initialized prior to providing the second [[application]] configuration to the runtime environment for servicing new requests related to the particular application.

24. (currently amended) The computer readable medium of claim 23, wherein execution of the instructions by the one or more processors causes the one or more processors to perform the step of determining that the second [[application]] configuration successfully initialized based on a communication from the application runtime environment.

25. (currently amended) The computer readable medium of claim 20, wherein execution of the instructions by the one or more processors causes the one or more processors to perform:

receiving a request for reconfiguring the computer system absent any changes to the computer system configuration; and
reconfiguring the computer system based on the second [[application]] configuration in response to the request.

Art Unit: 2157

26. (currently amended) The computer-readable medium of claim 20, wherein constructing a second [[application]] configuration is based on the second [[application]] configuration information and an application runtime environment configuration, and wherein execution of the instructions by the one or more processors causes the one or more processors to perform providing the second [[application]] configuration to the server for servicing new requests related to the particular application according to the second [[application]] configuration.

27. (currently amended) The computer-readable medium of claim 26 wherein execution of the instructions by the one or more processors causes the one or more processors to perform constructing the second [[application]] configuration by performing the steps of:

reading a timestamp associated with the second [[application]] configuration information;

and

determining that the second [[application]] configuration information is different than the

first [[application]] configuration information based on the timestamp.

28. (currently amended) The computer-readable medium of claim 20 wherein execution of the instructions by the one or more processors causes the one or more processors to perform constructing the second [[application]] configuration by performing the steps of:

reading a timestamp associated with a class file referenced in the second [[application]]

configuration information;

determining that the class file has changed based on the timestamp; and

constructing the second [[application]] configuration, at least in part, according to the

changed class file.

29. (currently amended) The computer readable medium of claim 20, wherein execution of the instructions by the one or more processors causes the one or more processors to perform :

logging one or more messages related to providing the second [[application]]
configuration to the computer system.

30. (currently amended) The computer-readable medium of claim 20 wherein execution of the instructions by the one or more processors causes the one or more processors to perform providing the second [[application]] configuration by performing the steps of:

updating a current configuration reference to reference the second [[application]]
configuration rather than the first [[application]] configuration.

32. (currently amended) In a computer system on which one or more applications execute, wherein a former application configuration is defined by a first application configuration information and a current application configuration is defined by a second application configuration information, the application configurations providing for execution of the application, a computer-readable medium comprising instructions which, when executed by one or more processors, cause the one or more processors to process application service requests, by performing the steps of:

wherein the first application configuration information specifies application classes for
execution of the application according to the former application configuration and
the second application configuration information specifies application classes for
execution of the application according to the current application configuration;
completing processing, based at least in part on the application classes specified in the
first application configuration information, a pending first request for an

application service that is associated, via a global variable, with the former application configuration;
receiving a second request for an application service;
associating, via a global variable, the second request with the current application configuration;
accessing the second application configuration information defining the current application configuration; [[and]]
while completing processing the pending first request, processing the second request based at least in part on the application classes specified in the second application configuration information.

38. (currently amended) An apparatus on which one or more applications execute, wherein a first application configuration is defined by first application configuration information, the first application configuration providing for execution of the application, the apparatus comprising:
- a network interface;
 - a memory; and
 - one or more processors connected to the network interface and the memory, the one or more processors configured for:
- wherein a first [[application]] configuration of a particular application is defined by first [[application]] configuration information, the first [[application]] configuration information specifying application classes for execution of the particular application according to the first [[application]] configuration;

reading second [[application]] configuration information defining a reconfigured version of the particular application, the second [[application]] configuration information specifying application classes for execution of the particular application according to the reconfigured version of the particular application;

constructing a second [[application]] configuration of the particular application based on the second [[application]] configuration information; and

providing the second [[application]] configuration to an application runtime environment for servicing new requests related to the particular application while maintaining the first [[application]] configuration for servicing, concurrently with the servicing of new requests based on the second [[application]] configuration, existing requests related to the particular application.

Reasons for Allowance

2. The following is an examiner's statement of reasons for allowance: the closest prior art of record Ferguson et al (U.S. Pat. No. 6,976,079) does not teach nor suggest in detail servicing new request related to a particular application while maintaining the first configuration for servicing, concurrently with the servicing of new requests based on the second configuration, existing requests related to the particular application with all the elements of the independent claims.

3. The dependent claims further limit the independent claims and are considered allowable on the same basis as the independent claims as well as for the further limitations set forth. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."
4. Claims 1-38 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaShonda T. Jacobs whose telephone number is 571-272-4004. The examiner can normally be reached on 8:30 A.M.-5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 09/994,497
Art Unit: 2157

Page 13

LaShonda T Jacobs
Examiner
Art Unit 2157

LTJ
September 14, 2006


ARIO ETIENNE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100